



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/573,873

03/29/2006

Richard Thomas Entwistle

6495-0155WOUS

7090

35301 7590 03/22/2010
MCCORMICK, PAULDING & HUBER LLP
CITY PLACE II
185 ASYLUM STREET
HARTFORD, CT 06103

EXAMINER

FRISTOE JR, JOHN K

ART UNIT

PAPER NUMBER

3753

MAIL DATE

DELIVERY MODE

03/22/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/573,873	Applicant(s) ENTWISTLE ET AL.	
	Examiner JOHN K. FRISTOE JR	Art Unit 3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The examiner mistakenly sent Applicants a letter acknowledging the request to re-open prosecution. The examiner apologizes for any confusion. The following is the final rejection and a complete response to Applicants' arguments.

Response to Arguments

2. Applicants' arguments filed 11/12/2009 have been fully considered but they are not persuasive. Applicants' argue that Tan does not disclose anything more than a servovalve having a primary valve and a pilot valve, the examiner disagrees. Tan discloses a servovalve, and a pilot valve but also a pilot valve outlet pipe that empties into the outlet passage of the main valve assembly. It is the examiner's contention that as fluid passes through the main outlet passage that suction will be created by fluid passing over the outlet of the pilot valve that is equivalent to Applicants' recited "suction nozzle". Any argument dealing with reducing possible valve "chatter" is moot since that argument is not commensurate with the scope of the claims. There are no recitations within the claims or even any functional language dealing with valve chatter. It is noted that Applicants' do not specifically address the merits of the new rejection of claim 8. Since the following prior art rejections are being maintained from the Examiner's Answer, the instant Office action has been made final.

Response to Amendment

3. The declaration under 37 CFR 1.132 filed 11/12/2009 is insufficient to overcome the rejection of claims 1-10 based upon it refers only to invention, not the claims as set forth in the last Office action because: the arguments are moot because the declaration is not commensurate with the scope of the claims. Any argument involving any "chatter" within Tan is irrelevant since there are not recitations within the claims dealing with valve "chatter". The declaration

Art Unit: 3753

also argues that Applicants' suction nozzle extends into the outlet flow. This argument is also moot because it is not commensurate with the scope of the claims. The declaration also argues that the pilot valve of Tan can not be "modified" to include a "suction nozzle arrangement" and Tan "teaches away" from any modification. However, Tan is not being modified to reject claim 1. It is the examiner's opinion that the pilot outlet of Tan will inherently create at least some suction as the fluid in the valve's outlet exits the valve and passes over the pilot's outlet passage. Therefore Tan is not being "modified" at all to reject claim 1. The declaration refers only to the system as described in the above referenced application and not to the individual claims of the application. As such the declaration does not show that the objective evidence of nonobviousness is commensurate in scope with the claims. See MPEP 716.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-5, 9, and 10 rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. No. 5,687,759 (Tan). Tan discloses a valve arrangement comprising an inlet connection (14), an outlet connection (16), a flow path (24), a closing device (60, 22), a valve seat (22), a valve element (60), a resetting device (66), a first pressure chamber (26), a second pressure chamber (32), a channel arrangement (56, 58), at least one auxiliary valve (82), a throttle (48), a suction nozzle arrangement (36, 38, 40), at least one suction nozzle (38), bordering wall (36), wherein the suction nozzle arrangement (36, 38, 40) blocks (at least partially) into the channel (56, 58), wherein the suction nozzle arrangement (36, 38, 40) is connected to the housing (12) in at least

Art Unit: 3753

two positions (near the upper portion of element 38 and near the lower portion of element 38), a body (38), a pilot valve seat (upper surface of element 38), an annular nozzle (inside surface of element 38), and a reduced (threaded section near the end of element 16 has an increased cross section) cross section (16).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 6, 7, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 5,687,759 (Tan) in view of U.S. Pat. No. 4,025,045 (Kubiak). Tan discloses a valve arrangement comprising an inlet connection (14), an outlet connection (16), a flow path (24), a closing device (60, 22), a valve seat (22), a valve element (60), a resetting device (66), a first pressure chamber (26), a second pressure chamber (32), a channel arrangement (56, 58), at least one auxiliary valve (82), a throttle (48), a suction nozzle arrangement (36, 38, 40), at least one suction nozzle (38), bordering wall (36), wherein the suction nozzle arrangement (36, 38, 40) blocks (at least partially) into the channel (56, 58), wherein the suction nozzle arrangement (36, 38, 40) is connected to the housing (12) in at least two positions (near the upper portion of element 38 and near the lower portion of element 38), a body (38), a pilot valve seat (upper surface of element 38), a pipe (36), an annular nozzle (inside surface of element 38), a front side channel (56), wherein the pipe (36) is located in the area (figure 1) of a diameter of the outlet connection (16), and a reduced (threaded section near the end of element 16 has an increased cross section) cross section (16) but lacks the pipe having a slot. Kubiak teaches a nozzle

Art Unit: 3753

arrangement comprising a nozzle member (21) with a slot. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the valve arrangement of Tan by manufacturing the nozzle with a slot as taught by Kubiak in order to decrease the possibility of fluid flowing through the nozzle in the reverse direction.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John K. Fristoe Jr. whose telephone number is (571) 272-4926. The examiner can normally be reached on Monday-Friday, 7: 00 a.m-4: 30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin O. Evans can be reached on (571) 272-4777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3753

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/John K. Fristoe Jr./
John K. Fristoe Jr.
Primary Examiner
Art Unit 3753

JKF